

A NEW SPECIES OF HETEROCAMPA (LEP., NOTODONTIDÆ.)

BY WM. BARNES, M. D. AND A. W. LINDSEY, PH. D.
Decatur, Ill.**Heterocampa amanda** n. sp.

Head, thorax and abdomen light gray or brownish gray to dark gray. Tufts and tips of patagia darker. Pectinations of $\hat{\sigma}$ antennæ long, gray-brown; shaft with some light gray scales.

Primaries gray, the costa powdered with whitish scales and the veins in part somewhat darker than the ground color. Within the basal area, below Cu_2 , and beyond the cell there are sometimes paler, somewhat brownish areas. Basal line geminate, the outer black, the inner gray, and the included space buff. T. a. line geminate, faint, outwardly convex between the veins. This line is oblique, almost reaching the middle of the inner margin, and is slightly curved. T. p. line similar but with scallops reversed and much slighter. This line is almost upright, but is slightly concave outwardly beyond cell and inside of Cu_1 , leaving the usual square projection between Cu_1 and M_3 . The s. t. line is made up of two blackish shades, one almost straight from near apex to M_2 , the other beginning outside of the first on M_3 , running thence to Cu_2 , and then curving outward toward the anal angle. Both are followed by vague slender whitish lines. There is a blackish terminal line, sometimes cut by white on the veins, and the fringes are concolorous with the wing, but with blackish at the veins. Cell terminated by a curved blackish line. Secondaries white in male, the costa, outer margin (very slenderly), terminal quarter and sometimes a short median portion of veins marked with gray-brown. Fringes more or less grayish, darker at the veins. In the female the secondaries are more gray-brown with a variably definite band filling the terminal third and a less strongly marked median shade and discal spot. Fringes grayish white, dark at the veins. Under surface white in the male, the secondaries marked much as above and the primaries darker toward costa and apex, with only the markings of the fringes, a discal bar, and sometimes a paler terminal area visible. In the female this surface is much darker, as would be expected. The primaries are otherwise similar

to those of the male, while the secondaries have a terminal powdery whitish area, preceded by a broad vague transverse shade and then by a slender median shade, both of which lose their identity toward the costa. The discal bar is present. Expanse 35 to 45 mm., the sexes similar.

Described from ten specimens in coll. Barnes. Holotype ♂, 3 paratypes ♂ and one paratype ♀, from the Hualapai Mts., Mohave Co., Ariz., May. One paratype ♂ from the Planet Mine, Bill Williams R., Yuma Co., Ariz., and four paratypes ♀ from Mohave Co., Aug. In addition we have specimens from Yavapai and Cochise Counties, Ariz.

We place this species after *umbrata* Wlk. and its forms, though it is not closely related. Its superficial appearance suggests *Fentonia miranda* Dyar, but it is a true *Heterocampa* and this resemblance is only general.

NOTE ON THE SURGONOPODS OF CERTAIN MECOPTERA AND NEUROPTERA.

BY G. C. CRAMPTON.

Through the kindness of Mr. A. N. Caudell, I have recently been able to examine a specimen of the interesting Mecopteron *Merope tuber*, preserved in alcohol. Since the specimen was preserved in fluid, this permitted the moving of the parts without danger of breaking them, and enabled me to determine that the parts which I formerly considered to be the dorsal penis valves (i. e., the parts labeled "dv" in Fig. 24, Plate III, of *Psyche*, Vol. 25, 1918), from an examination of a dried specimen of *Merope* in the Cambridge museum, are in reality the surgonopods, or lateral appendages of the tenth abdominal segment. It would also appear that certain of the structures called gonopods in the Neuroptera shown in Figs. 14, 12, etc., of the article in question, are likewise homologous with the surgonopods, as I have pointed out in a paper which will later be published, dealing with the terminal structures of insects in general.